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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,827	12/28/2001	Akihiro Wada	217818US0CONT	5540

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EXAMINER

KEYS, ROSALYND ANN

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/028,827	WADA ET AL.	
	Examiner	Art Unit	
	Rosalynd Keys	1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-23 is/are pending in the application.
- 4a) Of the above claim(s) 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-6 and 8-23 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/18/03 & 8/4/03</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Claims

1. Claims 1-6 and 8-22 are pending.
Claims 1-6 and 14-22 are rejected.
Claim 7 is canceled.
Claims 8-13 are withdrawn from consideration.

Election/Restrictions

2. See previous office action, mailed August 6, 2003.
3. Claims 8-13 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Information Disclosure Statement

4. The information disclosure statements (IDS) submitted on June 18, 2003 and August 4, 2003 have been considered by the examiner.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 1-6 and 14-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

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claimed invention. The original disclosure provides support for producing a fluoroalkanol having the claimed formula 1 with selectivities of 95 and 96% (see examples 1-3). However, the amendment, filed June 1, 2005, includes a limitation for producing the fluoroalkanol in amounts of 97-100% (at least 95%), which is not supported in the original disclosure.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-6, 15-17, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ver Nooy III (US 3,022,356), for the reasons given in the previous office action, mailed April 1, 2005.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action,.

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11. Claims 1, 14, 18, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ver Nooy III (US 3,022,356) alone or in view of Joyce (US 2,559,628), for the reasons given in the previous office action, mailed April 1, 2005.

12. Claims 1-6, 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joyce (US 2,559,628).

Joyce teaches preparation of a compound having the claimed formula 1 comprising reacting a compound having the claimed formula 2 with a compound having the claimed formula 3 (see entire disclosure), for the reasons given in the previous office action, mailed April 1, 2005.

13. Claims 1-6 and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uklonskii et al. (RU 2150459).

Uklonskii et al. teach preparing polyfluorinated alcohols having the claimed formula 1 with improved yield by heating peroxide initiator solution in aliphatic alcohol to 110-120° under pressure of 3.4-6.5 kg/cm² followed by controlled feeding F-containing olefin (see Derwent and Caplus abstracts). CHF₂CF₂CH₂OH was manufactured in 99.8% yield by addition reaction of MeOH with CF₂:CF₂ in the presence of (Me₃CO)₂ (see Caplus abstract).

Uklonskii et al. differ from the instant claims in that the radical initiator is not continuously added to the alcohol. However, the claims are considered to be obvious because it is well within the expected skill of the artisan to continuously add the radical initiator. See *In re Dilnot*, 319 F.2d 188, 138 USPQ 248 (CCPA 1963), wherein the court held that a continuous operation was obvious in light of the batch process of the prior art.

Uklonskii et al. further differ from the claims in that the mole ratio of perfluoroolefin to alcohol is not disclosed. However, changes in temperature, concentrations, or other process conditions of an old process does not impart patentability unless the recited ranges are critical,

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i.e., they produce a new and unexpected results. *In re Aller*, 220 F.2d 454, 105 USPQ 233, 235 (CCPA 1955).

Uklonskii et al. further differ from claims 18 and 21 in the manner in which the ingredients are added to the reactor. However, the selection of any order of mixing ingredients is prima facie obvious. See *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

14. Claims 1-6 and 15-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satokawa et al. (US 4,346,250).

Satokawa et al. teach preparing fluoroalkanols of the formula $H(CF_2CF_2)_nCH_2OH$ wherein methanol is mixed with a polymerization initiator and tetrafluoroethylene is mixed with the resulting mixture either continuously or intermittently at a temperature of 35° to 150°C and a total pressure of 1 to 12 kg/cm² gauge (see entire disclosure, in particular column 2, lines 48-59). The partial pressure ratio of TFE to methanol is between 30/1 to 1/5. The yield of useful telomers of $n \leq 4$ reaches 90% or more under the reaction conditions of the invention (see column 4, lines 35-40 and Table 1). Di-t-butyl peroxide is disclosed as a suitable polymerization initiator (see column 3, lines 63-68).

Satokawa et al. differ from the instant claims in that the radical initiator is not continuously added to the alcohol. However, the claims are considered to be obvious because it is well within the expected skill of the artisan to continuously add the radical initiator. See *In re Dilnot*, 319 F.2d 188, 138 USPQ 248 (CCPA 1963), wherein the court held that a continuous operation was obvious in light of the batch process of the prior art.

Satokawa et al. further differ from claims 18 and 21 in the manner in which the ingredients are added to the reactor. However, the selection of any order of mixing ingredients is prima facie obvious. See *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

Response to Amendment

15. The amendment filed June 1, 2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material, which is not supported by the original disclosure, is as follows: producing the fluoroalkanol in amounts of 97-100% (at least 95%).

Applicant is required to cancel the new matter in the reply to this Office Action.

Response to Arguments

Rejection of claims 1-6, 15-17, 19 and 22 under 35 U.S.C. 102(b) as being anticipated by Ver Nooy III (US 3,022,356)

16. Applicant's arguments filed June 1, 2005 have been fully considered but they are not persuasive. The arguments are based upon the newly added claim limitation wherein the fluoroalkanol is produced in an amount of at least 95%. However, this limitation contains new matter, which must be canceled. Thus, the instant arguments are irrelevant to the pending claims because although Nooy produces mainly bis-fluoroalkanols he also prepares the claimed fluoroalkanols utilizing the claimed method steps. Therefore, without the new limitation the instant claims are fully taught by Nooy and thus this rejection is maintained.

Rejection of claims 1, 14, 18, 20 and 21 under 35 U.S.C. 103(a) as being unpatentable over Ver Nooy III (US 3,022,356) alone or in view of Joyce (US 2,559,628)

17. Applicant's arguments filed June 1, 2005 have been fully considered but they are not persuasive.

This rejection is maintained for the same reasons as presented above for Nooy.

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Rejection of claims 1-6, 14-22 under 35 U.S.C. 103(a) as being unpatentable over Joyce (US 2,559,628)

18. Applicant's arguments filed June 1, 2005 have been fully considered but they are not persuasive.

This rejection is maintained for essentially the same reasons as presented above for Nooy because although Joyce et al. produce a mixture, the claimed fluoroalkanol is prepared. Thus, the pending claims are obvious for the reasons given in the previous office action.

Conclusion

19. Although the newly added limitation directed to producing the fluoroalkanol in an amount of at least 95% is considered new matter, new grounds of rejection regarding this newly added limitation have been presented in this office action in the event that the Applicants are able to overcome the new matter rejection. The new ground of rejections are the 35 USC 112, first paragraph rejection and the rejection of the claims under 35 USC 103(a) over Uklonskii et al. (RU 2150459) and Satokawa et al. (US 4,346,250).

20. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalyn Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M and F 3:00-8:00 pm and T-TR 5:30-10:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Rosalyn Keys
Primary Examiner
Art Unit 1621

September 15, 2005